

REMARKS/ARGUMENTS

Claims 1-20 were pending in the application. By this amendment, claims 1, 3, 7, 9, 11, 17 and 20 are being amended, and claim 19 is being cancelled, to advance the prosecution of the application. No new matter is involved.

On page 2 of the Office Action, claims 17 and 18 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,622,252 of Klaassen et al. Beginning on page 3 of the Office Action, claims 1-12, 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Klaassen in view of U.S. Patent 6,735,671 of Kida. On page 8 of the Office Action, claims 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Klaassen and Kida in view of U.S. Patent 6,735,706 of Tomlinson. These rejections are respectfully traversed.

The present invention provides an interface circuit for USB data transfer which includes a power source determination circuit, a power feeding switching circuit for determining a type of power source, a power feeding switching circuit for setting an amount of current to be supplied to a processing circuit conducting processing for data transfer, based on a result of determination made by the power source determination circuit, and a clock switching circuit for setting operation clocks of the processing circuit according to a result of determination made by the power determination circuit. A data transfer rate is set according to the type of power source.

In accordance with the present invention, the interface circuit is adaptable to upper version and lower version USB (USB 2.0 and USB 1.1 respectively). Accordingly, the interface circuit operates in accordance with either USB 2.0 protocol or USB 1.1 protocol. The interface circuit operates in accordance with USB 1.1 when the external power source is not connected. This is described at lines 2-19 of page 7 of the specification, and elsewhere.

As amended herein, claim 1 defines the interface circuit as operating "as an upper version USB interface circuit when an interface power circuit is connected, and operates as a lower version USB interface circuit when no external power source is connected".

Claim 3 depends from claim 1 and further defines the upper version USB as USB ver. 2.0 and the lower version USB as USB ver. 1.1. In rejecting claim 3 on the combination of Klaassen and Kida, the Office Action states that such references disclose a storage device with USB interface circuitry. Moreover, while the references do not state that the high speed data transfer specifically conforms to the USB ver. 2.0 specification and the slow speed data transfer specifically conforms to the USB ver. 1.1 specification, the Office Action states that USB ver. 2.0 is a well known high speed data transfer protocol and USB ver. 1.1 is a well known slower speed data transfer protocol.

A careful review of Klaassen shows a computer that controls a data transfer rate according to the type of power source. However, such reference does not show or suggest switching of the data transfer rate in an interface circuit in accordance with USB 2.0 or 1.1. A careful review of Kida shows that such reference discloses a hard disk drive with a USB interface. However, such reference neither discloses nor suggests the switching of the data transfer rate in the interface circuit in accordance with USB 2.0 or 1.1. Therefore, claims 1 and 3 as amended herein are submitted to clearly distinguish patentably over the cited art. Similar comments apply to claim 4 which depends from and contains all of the limitations of claim 3.

Claims 2, 5 and 6 depend directly or indirectly from and contain all the limitations of claim 1, so that such claims are also submitted to clearly distinguish patentably over the cited references.

Claim 7 defines an interface circuit for a USB data transfer which includes a power source determination means, a power switching means, and a clock switching

means. As amended herein, claim 7 defines the interface circuit as operating "as an upper version USB interface circuit when an external power source is connected, and operates as a lower version USB interface circuit when no external power source is connected". Therefore, claim 7 is also submitted to clearly distinguish patentably over the cited references.

Claims 8 and 10-16 depend directly or indirectly from and contain all of the limitations of claim 7, so that such claims are also submitted to clearly distinguish patentably over the cited references. Similar comments apply to claim 9 which further defines the upper version USB and the lower version USB of claim 7 as USB ver. 2.0 and USB ver. 1.1 respectively.

Claim 17 defines a method for determining a rate of data transfer which includes determining a type of power source, setting an amount of current to be supplied to a processing circuit conducting processing for data transfer, based on a result of the determination of the type of power source, and setting operation clocks for the processing circuit according to the determination of the type of power source. The data transfer rate is set according to the type of power source. Claim 17 is being amended by adding the limitations of claim 19 thereto, with claim 19 being cancelled in view thereof. As so amended, the method of claim 17 further comprises "operating as a USB ver. 2.0 interface circuit when an external power source is connected, and operating as a USB ver. 1.1 interface circuit when no external power source is connected". Therefore, claim 17 as amended is submitted to clearly distinguish patentably over the cited references.

Claim 18 and 20 depend from and contain all of the limitations of claim 17, so that such claims are also submitted to clearly distinguish patentably over the cited references.

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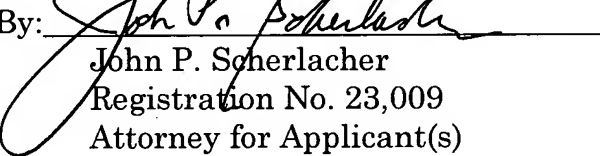
In conclusion, claims 1-18 and 20 are submitted to clearly distinguish patentably over the prior art for the reasons discussed above. Therefore, reconsideration and allowance are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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